

## Luke Gromen: The biggest mean reversion in 50+ years is underway!

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**Erik:** We've had so many secular dollar bulls on the program that you, our listeners, have asked us to find a credible secular dollar bear to present a contrasting view. Joining me now is Luke Gromen, founder of Forest for the Trees. And, folks, I think you're going to find that Luke's very bearish secular dollar arguments are as credible as they come.

Luke sent us a fantastic 45-page books of graphs and charts to support this interview, which you're definitely not going to want to miss. Registered users at macrovoices.com will find the download link in your Research Roundup email. If you're not registered yet, just go to macrovoices.com and click on the red button above Luke's photo that says, "Looking for the download."

Luke, before we dive into your chart book, let's start with the high-level executive summary. Why are you bearish on the US dollar? Not just right now, but as a secular trend.

**Luke**: Thanks for having me on, Erik. I've been excited to do this interview with you. Why we're bearish on the dollar is because a key driver to the dollar bull market that began in earnest in 3Q14 has been accelerating de-dollarization trends. In other words, the dollar began rising so fast in 3Q14 because it began to lose share of global trade at an accelerating rate in 3Q14, driven by moves led by China and Russia.

Now, ironically, what is in the long run the most fundamentally bearish development for the dollar —loss of share of global trade — was in the near term extremely bullish for the dollar, as were the reduced flow of dollars over a large and persistent bid for dollars from offshore dollar-denominated debt — created what was, in effect, a massive dollar short squeeze that began in earnest in 3Q14. However, as we noted, dollar loss of share is a long-term massively bearish development for the dollar.

And so, the only questions were always, number one, how high would the dollar go? And two, when will the tipping point be reached, where the dollar's share loss in global trade goes from being dollar bullish to dollar bearish?

And, what most dollar bulls don't realize, in our opinion, is that the tipping point was already reached a year ago in 3Q16 when the US Congressional Budget Officer (CBO) said that the US federal deficit as a percent of GDP was going to widen year over year for the first time since 2009. This is a critically important announcement that virtually every analyst totally missed.

You can see why this is so important if you look at Slide 29 in the packet. Since 1969, the US federal deficit as a percent of GDP has peaked and fallen year over year only seven times. Six of those prior peaks were followed by US recessions within 12 to 18 months. The only time the US did not experience a recession, the dollar was significantly devalued at the Plaza Accord in the mid-1980s.

And so last year, in 3Q16, the US CBO gave us the heads-up as an indicator that, for the past 50 years had indicated with 100% accuracy either a US recession or a major dollar devaluation was coming, had just been tripped. And, right on cue (as you can see in Slide 12) in late 2016, US trailing 12-month treasury receipts, or tax receipts, fell year over year for the first time since the recession — something that had never happened outside a US recession — in data on tax receipts that stretches back to at least 1980.

And so, in a nutshell, what the widening in US federal deficits and the ensuing year over year drop in US tax receipts meant was that, for the first time in ours or any dollar bull's career, the US fiscal situation "broke" in response to the stronger dollar and rising rates before a major emerging market crisis broke out.

This has led to a kind of unique situation where a core tenet of the dollar bull's belief system is the dollar will keep rising because the Fed is hiking rates and the US economy's fiscal situation has never broken before emerging market nations or currencies have suffered a crisis. But the data objectively shows the US fiscal situation has already broken before the emerging markets did.

It reminds me a bit of the situation in housing. When you had a core tenet of the housing bull case it was US home prices have never fallen nationally, when they'd already begun to do so.

And so, to directly answer your question, once we saw that widening in the US federal deficit as a percent of GDP for the first time since 2009, we began to become a bit nervous about what was at that point a strong dollar bull viewpoint that we were holding. And then once Trump became elected president, having run on what was at its core a weak dollar platform, and then he and his administration nearly immediately began making extremely dollar-bearish comments, we switched our position from dollar bull to dollar bear.

Erik: Okay, fantastic summary/overview. But let's come back now towards the beginning of

your chart book. Politicians love that old mantra that budget deficits don't matter. And, despite the objections of all the same people in the room, they've gotten away with that by running monster deficits for decades now. That leads of course to public complacency. People think that deficits really and truly don't matter.

So, Luke, please explain why you think that budget deficits are going to matter a whole lot more going forward. And please describe the three options that you foresee for coping with the problems that you think are about to arise.

**Luke**: Absolutely. Vice President Dick Cheney reportedly famously said, "Reagan proved deficits don't matter." He said that circa 2004. And, critically, Cheney was right for as long as global central banks are willing to sterilize US dollar outflows, or US federal deficits, as FX reserves. However, if at any point in time global central banks just stop sterilizing dollar outflows or stop stockpiling FX reserves, US deficits will begin to matter again for the first time in 70 years.

And, as you can see on the chart on Slide 10, exactly how that happened in 3Q14 — and 3Q14, there's that date again — in 3Q14, for the first time in 70 years, global central banks became net sellers of FX reserves. Nobody alive that is trading in markets today has ever seen this happen. Again, virtually everyone ignored this momentous development. But it was a development that the BIS had known would come for 37 years. You put the quote we have at the top of Slide 11.

"The second oil crisis could be worked through slowly, but the international financial system could not survive a third oil crisis. The inflation would make it impossible to recycle the petrodollars to the oil-importing countries with any hope of repayment, trade would crumble, and the system would be brought to its knees".

BIS Chair Jelle Zijlstra said that in 1980 and so, as was foretold in the quote 37 years prior, in 3Q14 the world stopped recycling petrodollars. Which means, for the first time in decades, US deficits began to matter again. This then implied — to answer your follow-on question — this implied one of three things. The US had to do one of three things.

Option 1 is the Fed would have to raise rates, regardless of the US economic situation, in an attempt to drive foreign capital into Treasuries, or possibly crash global markets trying to do so, which would also force a safety bid for Treasuries or dollars, which would thereby fund the US government, if only for a brief time.

The second option would be that the US government must accelerate its efforts in forcing banks, pensions, money market funds, to buy Treasuries, while also pushing even more entitlement costs — which are the US government's biggest line item for expenditures — push more of those entitlement costs onto US citizens.

Or number 3, the Fed must renew QE in amounts big enough to fund the US government, which we would estimate the starting point of being a hundred billion plus per month. Or otherwise massively devalue the dollar.

And so, in 3Q14 the US began doing both option #1 and option #2. It raised rates, despite an economy that was really in no shape to absorb rate hikes, which can be seen on Slide 12 which shows the Fed raising rates into a collapsed US tax receipts for the first time in at least 37 years. At the same time, the US government used regulatory changes to force US commercial banks, US money market funds, and US pensions to buy more Treasuries to pick up the slack from global central banks that were no longer net buyers of Treasuries.

And, importantly — anyone that is well-versed on emerging market economies will recognize some of these steps as something emerging markets typically do when they begin to come under accelerating fiscal pressure and begin heading towards a balance of payments crisis — they raise rates, they force banks in the domestic private sector to come to government, etc.

Additionally, the US government also began shifting its biggest expenditure, health care and entitlements, onto the private sector via ACA, or Obamacare. So, in late 2014, US consumers began seeing pronounced rises in US health care premiums, co-pays, and deductibles, cutting into US discretionary spending, at a time when virtually everyone on Wall Street thought US consumer spending was set to accelerate as a result of the collapse in oil and gas prices. All the actions the US government took served to "crowd out" the global private sector. And this contributed to the rise in both the dollar and in LIBOR, which both began to rise sharply in 3Q14.

Now, all of these steps that the US took to find itself, which, again, are steps traditionally taken by emerging markets under fiscal duress, they can all work. But they can only work for as long as the steps to reduce US government deficits do not crowd out the private sector to such an extent that they actually begin to reduce US tax receipts.

At that point, steps to reduce US government deficits will actually result in higher US government deficits. And, as we noted earlier, that began to happen in 3Q16 when the CBO said federal deficits would widen as a percent of GDP for the first time since 2009.

What this means is that, at that point, option #1 and option #2 that we highlighted were mathematically guaranteed to lead to a US balance of payments crisis — for as long as global central banks continue to not sterilize dollar outflows by stockpiling FX reserves, let alone net keep selling FX reserves.

And that meant that, post-3Q16, the only way out for the US was Option #3. Either a renewal of QE in very large amounts to fund US deficits, or — although otherwise known as helicopter money which, curiously enough, Ben Bernanke began floating trial

balloons about in articles in 2Q16 in what was at the time advertised as a strong economy — or a devaluation of the dollar.

**Erik**: I want to come back to your comments about the petrodollar, because this something that I've been following for years, you know, Sergey Glazyev, and Russia talking about de-dollarization, and I've seen quite a bit of chatter on the internet over the last couple of weeks about a new crude oil contract that will be denominated in Chinese yuan, but it will also be convertible into gold.

Now, on the surface it sounds like it's really just a novelty, because who outside of China has any yuan that they want to buy oil with? But you theorize that there's something much more interesting going on here. So please explain why you believe that this new oil contract may have actually been designed with the premeditated intention of enabling several different key actors around the world to change their business model completely.

**Luke**: Yes, I do. I really think there is something much more going on. And, in a nutshell, China is effectively re-opening the Bretton Woods gold window at a floating gold price through yuan to try to gain the ability to print yuan for oil. To our eyes, accomplishing this is a matter of national security for China, because it realized post-2008 that, when push comes to shove, the US is going to have to print the hundred-trillion-plus in entitlement obligations that it owes US baby boomers.

And, if oil is only priced in dollars globally when that happens, that's going to hyper-inflate the price of oil in China and globally, leading to domestic social problems for China, a loss of monetary policy independence for China, and high rates of inflation and social unrest globally. We've argued that a warmup for this could be seen in 2011 when food inflation was a contributing factor to the Arab Spring, and that was with "just" three-and-a-half trillion in Fed balance sheet growth. If oil is only priced in dollars when the US begins printing the hundred-trillion-plus it needs for entitlements for its baby boomers, it would pose a severe challenge for China, Russia, and other emerging markets. And it would also completely decimate the real oil-purchasing power of China's seemingly large three trillion dollars in FX reserves.

And, what I mean by that, is that, Western investors, we all tend to be dollar-centric, and so we all look at China's FX reserves in dollar terms. But there's a lot to suggest China looks at those FX reserves in oil terms. And, while three trillion dollars in FX reserves buys China a lot of oil today, China knows that, if oil is only priced in dollars, after the US is done printing a hundred-trillion-plus for entitlements China's three trillion dollars in FX reserves will buy them much less oil.

And, for a nation that is short oil, and food, and certain imports — like China — that's a big problem. And so, I ultimately think what seems to be a novelty in this contract is a much bigger geopolitical move, which is getting China the ability to print yuan for oil and

gain their monetary and political independence from the Fed and from the dollar.

**Erik**: Okay, now let me just make sure I've got this straight, in context. It sounds like you're saying the 45-year-old petrodollar system, where the profits that are made from oil by the Arabs, it's all priced in US dollars and it gets reinvested in US Treasuries — a lot of people think that the primary reason the US dollar has been able to retain its global reserve currency status for decades after the 1971 collapse of Bretton Woods is specifically because of that petrodollar system.

It sounds to me like you're saying that this new yuan-denominated crude oil contract was basically designed to kill the petrodollar system. Is that right? And, if so, what do you think the odds are of them succeeding at accomplishing that goal?

Luke: I don't know if that was the goal in setting up a yuan-denominated oil contract, and reopening the Bretton Woods system through yuan at a floating gold price was designed specifically to kill the petrodollar, but, regardless of intent, that is effectively what it will do. If you remember, under the Bretton Woods, the dollar was the US's currency and the US's problem through the gold link. In other words, the US promised to settle all offshore dollar balances in gold on demand at, first, 35 dollars an ounce, and then 42 dollars an ounce. Once we closed the gold window, of course, there was the famous Treasury Secretary Connally quote which is, "The dollar is our currency but it's your problem."

What China and Russia — and by the way, the way the Euro was set up, but that's a separate discussion — but what China and Russia have set up is a currency system like the dollar was from 1946 to 1971 under Bretton Woods, which is: "It's our currency AND it's our problem." If China manages the yuan irresponsibly under this system, creditors — which, by virtue of China's trade balances tend to be energy and commodity exporters — those creditors can show up with any offshore yuan balances and bid up the price of gold.

And, importantly, a rising price of gold will strengthen the yuan and not weaken it like the dollar, and it will strengthen the Chinese economy — to the extent that they hold gold at the sovereign level, help take them out of their dollar position. To the extent the Chinese commercial banks own a lot of gold, a rising price of gold will help Chinese commercial bank capital levels. And then the Chinese people own a lot of gold, something the Chinese government has reportedly been encouraging for a number of years, and so, to the extent China needs to make a transition from a mercantile export-driven economy to one that is more consumption-driven, a rising price of gold, if their people have some gold in their pocket, helps accelerate the growth of a Chinese consumer class.

And so, I think it is really about setting up a system that is set up the way the dollar was pre-1971, pre-petrodollar, which is "it's our currency and it's our problem."

Erik: So what is all this going to mean for the US dollar's ability to retain its reserve currency status? I mean, the lion's share of international oil transactions is a huge percentage of international trade in general. So, if we were to abandon the dollar in favor of this gold-convertible yuan-denominated pricing, what happens to global demand for Eurodollars? And what does that mean in terms of the United States' ability to continue financing its government spending and entitlement programs with deficit spending (which of course is the point we started with at the beginning of your chart book)?

Luke: I don't think the lion's share of the oil transactions will go to yuan *per se*. I think it's important to caveat this with, one, we need to see how the yuan contract launches, we need to see; is the yuan going to be convertible under this oil contract as intimated recently and as explicitly stated back in 2015? And, of course, in the meantime, the timing of US sanctions on Russia, Iran, and possibly Venezuela look conspicuously like trying to kick nations that might sell oil in yuan out of the dollar-centric financial system to try to disrupt things — ironically that may only serve to accelerate matters — with all that said, if the yuan oil contract launches and is convertible, as recently intimated and explicitly stated in 2015, the global need for FX reserves, which are heavily dollar-denominated, they'll be structurally and permanently reduced.

And the importance of this can be seen in the chart on Slide 21. China holds FX reserves equal to 26% of GDP. The US holds FX reserves equal to just 0.6% of GDP. Why the difference? One reason. Because the US can print dollars for oil and other critical imports. If China gets the ability to do the same, China's need for FX reserves will be structurally and permanently reduced. That 26% will move towards 0.6% over time. I'm not saying it will automatically get there, but it is going to go lower in all likelihood.

That will structurally and permanently reduce funding of US government deficits at a time that the US government's deficits are about to accelerate secularly and meaningfully, due to baby boomer demographics.

Erik: Okay, so if I look at some of your slides here, it looks like the whole idea around this oil contract is it's going to change the gold/oil ratio dramatically. So, what does that mean for investors and traders? Is the trade opportunity a pure bullish view on gold? Is it a pairs trade that's long gold and short oil? Because, after all, oil's already been beaten up pretty badly over the last couple of years. So, it seems to me like putting new money to work in a secular long-term short trade on oil is probably going to be hard for a lot of traders to rationalize.

How do you see this translating to a trading strategy?

**Luke**: I think, in a nutshell, the trade is long gold, short oil. And what China is doing moves gold back to being the reference point of oil for the first time in 46 years. But, importantly, gold was oil's reference point for all the 108 years before 1971, back to shortly after the

Civil War, through the gold-backed sterling and then the gold-backed dollar.

The important thing here, though, is, if gold is going to become the reference point for oil again, or, increasingly, physical oil markets are some 12-15 times bigger than physical gold in annual dollar production terms. Which tells us the oil price of gold, or the gold/oil ratio (or GOR as we'll refer to it here), must rise significantly.

If you look back in some of the slide deck (and that's one slide I don't have numbered and I apologize), but pre-3Q14 the gold/oil ratio had consistently traded in a 10 to 20 times ratio. In other words, 10 to 20 barrels of oil per ounce of gold. Post-3Q14, it's never gone below 20. So, there's been a rerating higher already and, ultimately, we think it will continue to rerate higher. And so, as we said, we think the trade is long gold. short oil.

From there, further derivative trades off of that get political. And, by that, I mean; does the US want to have a domestic energy sector? If the US thinks strategically that importing all of its oil is a good idea, then if this yuan — this multi-currency oil pricing and the gold link — continue to gain traction, dollar/gold prices don't have to rise a whole lot. Oil will drop notably, flat gold, oil down a lot will drive the GOR up. And the US will have to import all of its oil, and the dollar might not have to weaken much — and might actually strengthen a little bit if gold falls under that scenario.

However, if — we think the US, not only strategically but economically, needs a robust energy sector. Not just for energy and industrials, and on the defense and national security side, but to make things like Tesla and Solar viable — you need expensive oil. And so, if the US needs higher oil, then, under what China and Russia are forcing, the GOR must rise by gold rising a lot and oil rising less, but still a lot possibly underneath it.

**Erik:** Let's come back to the three options that you mentioned earlier, Luke. It sounds like you think there's a good chance we could get pushed into a corner where quantitative easing is the only way out. Now, a lot of people would say, look, eight years ago all the naysayers said that there was going to be hyperinflation and all these problems.

But in actuality it really didn't cause that many problems at all, quantitative easing appears to have worked.

So, can it work the next time around? And what problems might we encounter if we were to engage in another big round of quantitative easing, in terms of being able to fund government deficit spending and so forth? Is that going to work this time around? Or is it a different picture?

**Luke**: I think it could work. But I do think it's a different picture. I think it could work. At any rate, it certainly, in our opinion, wouldn't be dollar-positive, even if it worked the way it worked last time. But I would point us back to the global FX reserve picture which, back

then, the world was still growing FX reserve stockpiles, they were still sterilizing dollar outflows. And so, remember, when we printed that money there was no inflation here. There was a lot of inflation in China, there was a lot of inflation in the Middle East — everywhere where there were dollar stockpiles growing there was a lot of inflation.

Those dollar stockpiles aren't growing anymore. And so, what, effectively, the process of what we've described in terms of the implications of what of falling global FX reserves, of what this oil contract would do, effectively — if you think of QE as a hose of liquidity, back when we did it the first time around, in 2008, that hose was spraying the world. It sprayed China, it sprayed the Middle East etc. The rest of the world, by virtue of the process and what they have done, that hose has now been bent around and stuck in through the United States' basement window.

And so, we can do it. But, I think the next go-around, you will see inflation that will be much more in line with what the naysayers feared the first time around, if global FX reserve balances do not rise enough to compensate for the increased US dollar outflows.

Erik: Speaking of things that the naysayers predicted the first time around, a lot of people, myself included, predicted years ago that someday the really big foreign holders of US Treasury paper, particularly China and Japan, would start to divest those holdings. And a lot of people, including me, predicted that that was going to result in a disaster for the US Treasury market.

But look what's happened. China and Japan did divest exactly as we predicted. And they've been dramatically reducing their US Treasury holdings. But, not only did the treasury market not crash, instead we're to this day within 1% of the all-time record low yield on the ten-year. Which was actually set a year ago after China and Japan started divesting.

So how is this possible? What's going on here? And why will it be different next time around?

Luke: That's a great point. I think there's a number of things at play. I think — a good friend of mine who's a veteran macro trader sent me a fascinating chart yesterday showing G4 central bank balance sheets. So, Eurozone, Bank of Japan, US, PBOC — that balance sheet is now, in aggregate, nearing 20 trillion dollars and is basically a straight line up into the right at 45 degrees. And so there, to the extent that capital flows are open, and you've got the differentials in rates, there's certainly — I think that has been a big contributing factor to what has happened.

Secondly (remember a point earlier), the US private sector has, since 3Q14, been essentially forced to buy Treasuries via regulatory changes and on the commercial bank side, on the money market side. And then you've also, of course, had this global private

sector continuing to buy in a reach for yield.

And, additionally, US retirees who've been buying for demographic reasons — if you look at the TBAC, the Treasury Advisory Committee, the way-out bid for a long-dated US paper has come from US investment funds. Which, by virtue of who holds the wealth in this country, shades towards the older demographic. And it's interesting, as I look at all of those (or many of those) as sort of a side note, they may all be right.

To me, something that jumps out at me as I try to look at the forest for the trees, is US retirees, commercial banks, and pension funds are all on the right side of a major macro trade, well ahead of time. It would be probably the first time I can remember in my 22-plus career on Wall Street —and I don't mean to be trite — but the reality is none of those investor groups have historically been known for being leading indicators of major macro trends. So, it will be interesting to see.

But, to answer your question directly: I think it's the combination of G4 balance sheet expansion, it's some other regulatory actions the US has done, it's a global private reach for yield in itself sell side demographics, and the US and other Western social democracies that are buying for safety reasons.

**Erik:** Something I've said for years is the real endgame starts when we eventually someday face runaway inflation, because that's the point where you can no longer solve your problems by just printing more money out of thin air. But almost everybody in finance seems to be convinced that deflation is the risk, we've got nothing to worry about from inflation.

And then when I try to argue that it's mathematically impossible for the US national debt to ever be paid back in real terms, so therefore Treasuries really aren't the safe-haven asset that everybody seems to think they are, people just shut me down and they tell me I'm crazy. They tell me that US sovereign debt will forever and for all time be the safest investment on earth and will therefore always be the target of the so-called safety trade, away from risk assets, in times of crisis.

Do you buy that story? Or do you think that maybe they're stuck in thinking that's going to change?

**Luke**: You know, when I hear you describe that, something that jumps to mind is that, curiously, since the second quarter of 2013, according to World Gold Council data, global central banks have bought more physical gold than they have US Treasury bonds. Which is an interesting statement in the context of what you just described about what they may think is the safest investment on earth. And maybe they've begun to downgrade US Treasuries to second safest. But who knows?

If they have, I do think Treasuries will remain the second safest investment on earth on

a nominal basis. And, what is it they say about those that ignore history being doomed to repeat it? I say that because it's not well known what the Fed did the last time US federal debt to GDP was above 100%, but this can be seen on Slides 37 and 38 in our packet.

In November 1941, the US was 12 years into deflation, the US economy was weakening again, deflation was coming back, Treasuries were an easy one-way trade. Two weeks later, Japan bombed Pearl Harbor, the Fed told the Treasury it would buy all ten-year Treasuries issued at two-and-a-half percent, and no holders of Treasuries lost a dime from 1942 to 1951 as the Fed pinned yields at two-and-a-half percent. Well, they didn't lose a dime nominally of course.

In that time, stocks rose five x in those nine years, CPI rose three-and-a-half x, and so Treasury holders got destroyed on real basis. And I expect this type of action, which really began in 2009, to continue from here and possibly accelerate, given how important US stock prices are to consumption and to tax receipts through capital gains and options expirations. I think this must happen to avoid a much worse outcome.

And, furthermore, I think in certain areas high inflation has already begun. Three years ago, my family's health insurance premium cost me \$400 or 0.4 Treasuries per month. Now they cost me \$1,100 or 1.1 Treasuries per month. And I think that trend will continue. And I think you've seen high rates of rent and tuition inflation continue as well. And so, I think, when it comes to necessities like that, you're likely to continue to see rates of inflation that trend well above reported levels of CPI.

Something I do find interesting in the context of this discussion and of the history is, if you take a 30,000-foot view, to me it appears that regulatory authorities have spent some time in the last three to four years making something of a Hotel California out of the bond market. You know: "You can check out any time you like, but you can never leave."

I've never traded bonds, but, from what I can tell from what I've read, liquidity has fallen pretty notably, some of it regulatory-driven over the past few years in the bond markets. And so, to me it begs the question: What happens if bond holders wake up one day to some significant dollar devaluation? Which is historically how these types of things happen. Can they sell all at once? To whom? Is there enough liquidity? I don't know. To me, if the dollar takes enough of the brunt of that pain I would think rates would have to rise. But perhaps not that much if the dollar really takes the pain. I'm not sure that that will be like the early 1980s in that regard.

**Erik**: You know, for more than a decade now, I've been convinced that, eventually, someday, and probably in our lifetimes, we're going to have to go through a really, really big reset. And what I mean by that is that the predictions that Robert Triffin made 50 years ago about the US dollar eventually losing its reserve currency status would be proven

correct. And we'll be forced to come to terms with the reality of, no, you really can't get away with doubling the national debt every eight years the way that we've been doing for the last several presidential terms.

And I predict that, eventually, someday, we'll have an outright crisis on the US Treasury market as people figure out that these paper promises in the form of debts that are mathematically impossible to repay in real terms — of course you can repay them nominally, as you said — but in real terms they can't. They've got to be profoundly mispriced when everybody thought it's the safest, most indisputably stable asset on earth, and, the reality of the situation is, it can't be repaid in real terms. I've predicted that that could lead to a really serious social unravelling — really, really big deal, you know, bigger than the 2008 financial crisis, closer to something like the 1990s collapse of the Soviet Union. Although I don't know that it would create a government collapse. I think it could create an economic collapse.

But, you know, I've been persuaded, Luke, that these ideas that I have must be quite a way out, at least another decade before something of that scale starts. Because we really are seeing that the stock markets are recovering; the economy is to some extent recovering from the 2008 event.

So, please correct me if I'm misinterpreting you. Because, frankly, as I listen to this interview and go through your slide deck, it sounds to me like the real message here that you may be giving us is that that big endgame that I thought was still a decade off might have already begun. And of course, these things happen slowly. But I think you're saying that some of the things that I saw leading to loss of US dollar reserve currency status, and that having a number of follow-on implications —

It sounds like you're saying maybe that's already beginning. Am I right to think that? Or is that a mischaracterization of your view?

**Luke**: The short answer is, no, I don't think it's a mischaracterization of our view. Our analysis that we've done suggests that, without a significant dollar devaluation, US fiscal problems are likely to become acute by 2021 or 2022, possibly earlier, if the US enters a recession. There's two charts on Slide 35 showing some of that math, and it allows the reader to play around with some of the assumptions.

But the chart on the left of that slide shows US federal revenues growing 2% CAGR (compound annual growth rate), it grows entitlements at 6% CAGR (which is what they've been plugging along at for a number of years), it grows defense expenditures at 1% CAGR, and it grows interest expense at 22 billion dollars a year, which is flat interest rates, and only a trillion dollars a year in debt growth, and it's been growing a trillion two CAGR for the past six or seven years.

But if you use those assumptions, your big three expenditure items become more than

100% of federal tax revenues by 2021. If you assume just a very modest recession, and you have revenue growth of 0.5% only — not even down but just 0.5% growth CAGR — you bump up entitlement growth to 9%, which is what Medicare has been growing CAGR, but not social security.

And then you don't change anything else with defense or with interest expense, you get big three expenditure items above federal revenues by late 2018. And so that is — everything else then has to be spent. You're talking about trillion-dollar-plus deficits on a run-rate basis exiting 2018, which I'm not sure a lot of people are doing that math at this point.

You know, regarding the social fallout and — most on Wall Street don't see it, they tend to live on the coasts; I live in sunny, beautiful Cleveland, Ohio, so it's interesting. I already see the fallout, the social fallout. I think you've started to see — one of the things that really moved us from being bullish the dollar to bearish is, the first thing to break was on the populism side. You've seen a sharp uptick in political populism with Brexit, Trump, and, to us, the biggest message of that is I think there has been this overriding belief that entitlement reform would get done someday in the United States. And in other Western social democracies.

And I think the overriding message of the political populism that has broken out in the United States and in Western social democracies over the last six to twelve months is those are going to get paid. And I think that's what maybe Mr. Market is starting to discount. You've seen a breakout in the S&P 500 over the TLT, the long-bond ETF, very pronounced breakout on a 25-year chart.

You've seen the social costs already. Last year 65,000 people died in the United States from drug overdoses. The *Wall Street Journal* called those "deaths of economic hopelessness." That is an echo directionally of what happened after the Soviet Union broke up.

In my home town, we've gone from five OD cases 2014 to 48 in 2016 to 73 here to date. And this is a median income, median home price, median education Middle America type town. And so—

I agree with you: could it get worse if mismanaged? Yes. It could be very bad. But I'm ultimately optimistic. If we look at what we talked about before, that what is happening appears to be a breakdown of the petrodollar system, the petrodollar was really good if you were associated with what I have called the dollar export business.

Really good for the dollar export business, really bad for manufacturing. Really good for Washington, really bad for flyover country. It's gotten to the point where in 2012 the Washington Post noted — seven of the ten richest counties in America are around Washington, D.C. There was an article a couple of months ago in an auto magazine that

noted that, of the 25 biggest US metropolitan areas, or MSAs, 24 of them could not afford a traditionally-financed average new car with the median income in each respective MSA. The one MSA that could afford a new car: Washington, D.C.

My point is that dollar-exorbitant privilege has become an exorbitant burden to 24 of 25 MSAs. It's only a privilege anymore to Washington. It's why Trump won Michigan, it's why Trump won Ohio, it's why he won Pennsylvania, it's why he won Wisconsin. If the dollar loses reserve status, in my opinion, it could be epically bullish for US dollar risk assets, US dollar gold, energy, industrials, emergency market currencies, emerging market stocks. Very bearish for the dollar.

And it probably doesn't work out too well for people holding Treasuries, and it probably doesn't work out well for those people most close to the dollar export business, which the biggest beneficiary over the last 30 years 40 years has been Washington, D.C.

**Erik**: Well that's a sobering perspective to say the very least, Luke. Finally, though, before we close, please give us the quick overview of what you do at Forest for the Trees. And tell our listeners where they can follow your work.

Luke: Absolutely. Thank you. We started FFTT four years ago. FFTT stands for Forest for the Trees. After 22 years as a partner at two different equity research firms in the Midwest — what we do is aggregate large amounts of data from disparate publicly-available resources, trying to identify developing economic bottlenecks. Because it's been our experience throughout our careers that excess returns on a macro and sector basis accrue to those sectors positioned to benefit from economic bottlenecks.

And obviously we think we've found one of the biggest economic bottlenecks in a generation or more here, in what we talked about today. If you're interested in learning more about FFTT, or a couple of free samples, you can go to our website at www.fftt-llc.com.

**Erik**: And people can also follow you on Twitter @lukegroman. Luke, I can't thank you enough for an absolutely outstanding interview. Patrick Ceresna and I will be back as MacroVoices continues right here at macrovoices.com.